Meat Science **34** (1993) 403–405

CONTENTS OF VOLUME 34

Number 1

Cold Induced Toughening in Excised Pork as Affected by pH, *R* Value and Time at Boning 413
A. J. MØLLER & P. JENSEN (Denmark)

Quadratic Relationship between Early-post-mortem Glycolytic Rate and Beef Tenderness. 425
M. M. PIKE, T. P. RINGKOB, D. D. BEEKMAN, Y. O. KOH & W. T. GERTHOFFER (USA)

'Scharrel' (Free Range) Pigs: Carcass Composition, Meat Quality and Taste-panel Studies 439
P. G. VAN DER WAL, G. MATEMAN, A. W. DE VRIES, G. M. A. VONDER, F. J. M. SMULDERS, G. H. GEESINK & B. ENGEL (The Netherlands)

Determination of Papain in Raw Meat by Immunoassay 451
J. G. SARGEANT, H. M. BOWIE & M. J. BILLINGTON (UK)

Objective Measurements of Pork Quality: Evaluation of Various Techniques . 461
R. CHIZZOLINI, E. NOVELLI, A. BADIANI, P. ROSA & G. DELBONO (Italy)

Objective Evaluation of Pork Quality: Results of On-Line Measurements . . 489
R. CHIZZOLINI, E. NOVELLI, A. BADIANI, G. DELBONO & P. ROSA (Italy)

Catalysis of Lipid Oxidation in Muscle Model Systems by Haem and Inorganic Iron 505
F. J. MONAHAN (Ireland), R. L. CRACKEL, J. I. GRAY (USA), D. J. BUCKLEY & P. A. MORRISSEY (Ireland)

Skeletal Muscle Cellularity and Histochemistry in Response to Porcine Somatotropin in Finishing Pigs 517
Ch. REHFELDT & K. ENDER (Germany)

Influence of Pig Crossbreed on the Composition, Volatile Compound Content and Flavour of Dry Cured Ham 529
J. L. BERDAGUÉ, N. BONNAUD, S. ROUSSET & C. TOURAILLE (France)

Meat Science **(34)** (1993)—© 1993 Elsevier Science Publishers Ltd, England. Printed in Great Britain

Number 2

Early *Post Mortem* pH Decrease in Porcine *M. Longissimus dorsi* of PSE, Normal and DFD Quality 131
A.-C. ENFÄLT, K. LUNDSTRÖM & U. ENGSTRAND (Sweden)

Model System Evaluations of the Effects of Different Levels of K_2HPO_4, NaCl and Oil Temperature on Emulsion Stability and Viscosity of Fresh and Frozen Turkish Style Meat Emulsions 145
O. ZORBA, H. Y. GOKALP (Turkey), H. YETIM &
H. W. OCKERMAN (USA)

Further Investigations into the Relationship Between Ultimate pH and Tenderness for Beef Samples from Bulls and Steers 163
R. W. PURCHAS (New Zealand) &
R. AUNGSUPAKORN (Thailand)

Prediction of Meat Quality in Live Pigs using Stress-Susceptible and Stress-Resistant Animals 179
K. S. CHEAH, A. M. CHEAH (Australia), R. LAHUCKY, J. MOJTO &
L. KOVAC (Czechoslovakia)

A Study of Changes in the Fat Content of some Varieties of Dry Sausage During the Curing Process. 191
J. CHASCO, M. J. BERIAIN & J. BELLO (Spain)

Effect of the Addition of Pronase E on the Proteolysis in Dry Fermented Sausages 205
O. DÍAZ, M. FERNÁNDEZ, G. D. GARCÍA DE FERNANDO,
L. DE LA HOZ & J. A. ORDÓÑEZ (Spain)

Modelling Post-mortem Tenderisation—IV: Role of Calpains and Calpastatin in Conditioning 217
E. DRANSFIELD (UK)

Influence of Freezing Method on Thaw Drip and Protein Loss of Low-Voltage Electrically Stimulated and Non-Stimulated Sheeps' Muscle 235
B. SACKS, N. H. CASEY, E. BOSHOF &
H. VAN ZYL (South Africa)

Antioxidant Activity of Carnosine in Cooked Ground Pork 245
E. A. DECKER & A. D. CRUM (USA)

Comparison of Dry Sausages Produced by Different Methods: Addition of Nitrite/Nitrate Salts and Sodium Chloride at Different Phases 255
I. ASTIASARÁN, R. REDIN, C. CID, J. IRIARTE &
J. BELLO (Spain)

Number 3

Attachment of Bacteria to Meat Surfaces: A Review 265
D. SELGAS, M. L. MARÍN, C. PIN & C. CASAS (Spain)

A Practical Method to Prevent Dark-Cutting (DFD) in Beef 275
L. BARTOŠ, Č. FRANC, D. ŘEHÁK &
M. ŠTÍPKOVÁ (Czech Republic)

The Effectiveness of Examining Early Post-Mortem Musculature to Predict Ultimate Pork Quality 283
R. G. KAUFFMAN (USA), W. SYBESMA, F. J. M. SMULDERS,
G. EIKELENBOOM, B. ENGEL, R. L. J. M. VAN LAACK,
A. H. HOVING-BOLINK, P. STERRENBURG (Netherlands),
E. V. NORDHEIM (USA), P. WALSTRA &
P. G. VAN DER WAL (Netherlands)

Influence of Cooking on Benzo(a)pyrene Content in Smoked Sausages . . 301
P. SIMKO, S. GERGELY, J. KAROVICOVA, M. DRDAK &
J. KNEZO (Slovak Republic)

Spray Chilling of Lamb Carcasses 311
T. BROWN (UK), K. N. CHOUROUZIDIS (Greece) &
A. J. GIGIEL (UK)

Growth and Carcass Characteristics of Angus and American Wagyu Steers . 327
D. K. LUNT, R. R. RILEY & S. B. SMITH (USA)

Changes in pH and Water Holding Properties of *Longissimus dorsi* Muscle During Beef Ageing 335
K. BOAKYE (Ghana) & G. S. MITTAL (Canada)

The Effects of Spray and Blast-Chilling on Carcass Shrinkage and Pork Muscle Quality 351
S. D. M. JONES, L. E. JEREMIAH & W. M. ROBERTSON (Canada)

Flavour- and Tenderness-Related Quality Characteristics of Goat and Sheep Meat 363
H. C. SCHÖNFELDT, R. T. NAUDÉ, W. BOK,
S. M. VAN HEERDEN, R. SMIT & E. BOSHOFF (South Africa)

Cooking- and Juiciness Related Quality Characteristics of Goat and Sheep Meat 381
H. C. SCHÖNFELDT, R. T. NAUDÉ, W. BOK,
S. M. VAN HEERDEN, L. SOWDEN & E. BOSHOFF (South Africa)

Research Note

The Effect of Scalding on Subcutaneous and Ham Temperatures and Ultimate Pork Quality 395
P. G. VAN DER WAL, G. VAN BEEK, C. H. VEERKAMP &
G. WIJNGAARDS (Netherlands)